



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,295	07/17/2003	Joel A. Drewes	MI22-2342	7253
21567	7590	08/17/2005	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			NGUYEN, TUAN H	
			ART UNIT	PAPER NUMBER
			2813	
DATE MAILED: 08/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/622,295	<b>Applicant(s)</b> DREWES, JOEL A.	
	<b>Examiner</b> Tuan H. Nguyen	<b>Art Unit</b> 2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 7 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5, 6 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/6/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

Applicant's election with traverse of claims 1-10 in the reply filed on 6/3/05 is acknowledged. The traversal is on the ground(s) that claims 1-3 are generic to all of the species claims 4-10. This is found persuasive, the restriction has been withdrawn, and all claims 1-10 are examined as followed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bagley et al..

See Bagley et al., figs. 1-11 and text on col. 3-5 which discloses the claimed method of forming a semiconductor construction comprising forming a mass 18 over a semiconductor substrate 12 (fig. 4); forming a first and second layers 22, 24 over the mass 18, and over a region of the substrate 12 proximate the mass 18 (fig. 6); removing the first and second layers 22, 24 from over the mass 18 while leaving portions of the first and second layers over the region proximate the mass 18 including etching the first layer 22 with an etch selective for the first layer 22 relative to the second layer 24 to remove at least some of the first layer 22 from under the second layer 24 and thereby form a channel over the region proximate the mass 18 (figs. 7-8); forming a material 30 within the channel (fig. 11).

Claims 1, 4, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al..

See Huang et al., figs. 4(a)-4(f) and text on col. 7-8 for disclosing the claimed method of forming a semiconductor construction including the steps of forming a mass 62 over a semiconductor substrate 60; forming a first and second layers 72, 74 over the mass 62 (fig. 4(a)); removing the first and second layers from over the mass while leaving portions of the first and second layers over the region proximate the mass (fig. 4(b)); etching the first layer 72 with an etch selective for the first layer relative to the second layer to remove at least some of the first layer from under the second layer and thereby form a channel over the region proximate the mass (figs. 4(b)-4(c)); and forming a material 78 within the channel (fig. 4(d)).

With respect to claims 4, 7, see col. 8, third paragraph for the materials of first and second layers 72, 74.

***Allowable Subject Matter***

Claims 2-3, 5-6, 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the references of record teaches or suggests the claimed method for forming a semiconductor construction as claimed in claim 1 including the mass comprising a memory bit, or the removing of first and second layers comprising CMP; or the first and second layers comprising nitride and oxide respectively, or not silicon

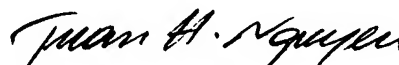
Art Unit: 2813

carbide and silicon carbide respectively, or the first layer comprises carbon; or the material formed within the channel is a soft magnetic material comprising one or more of nickel, iron and copper; or consists essentially of mu-metal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is 571-272-1694. The examiner can normally be reached on 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan H. Nguyen  
Primary Examiner  
Art Unit 2813

TN